

Wind EUROPE

CONFERENCE & EXHIBITION 2019

2-4 APRIL
BILBAO

**DAY
ONE**

Vestas exec: Nordics show how all countries will become subsidy-free

BERND RADOWITZ

The Nordic countries are leading the way into a future where subsidy-free onshore wind will be the norm, Vestas' Northern and Central Europe president Nils de Baar told *Recharge*.

"We believe all markets will go through the same transformation from having a regulated feed-in tariff, to going into auctions — which we see now in a majority of markets — [before] ending up in merchant environments," de Baar said in an interview.

"If planning policy allows us to install the latest and most efficient technology with scale, then we believe the technology will take us to merchant onshore wind projects.

"Some countries will take longer, but eventually all will get there. That's based on the fact we see now across the board, that wind is the

Nils de Baar,
Vestas' president
for Central and
Northern Europe



most economic source of energy. We believe that will be the future."

De Baar's comments came after Vestas announced first orders for subsidy-free projects in the UK and Denmark. The wind OEM received

an order for a merchant project in Finland last year.

Subsidy-free projects in neighbouring Sweden and Norway are "just around the corner," he

CONTINUED on Page 3

The era of fast-falling turbine prices is over, says Nordex boss

BERND RADOWITZ

The fast and damaging decline of wind turbine prices that has troubled the industry in recent years has stopped, José Luis Blanco, chief executive of the Nordex Group, told *Recharge*.

"We see that the rapid decrease in prices has come to an end. They are stabilising," he said.

"We have highly-competitive new products tailored for volume as well as for growth markets, and we are positive that we, and the industry, can expect better prices in the coming years."

His view is supported by Wood

CONTINUED on Page 3

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MHI Vestas lands record 50MW floating wind catch

The 2MW 'scout' turbine installed at the Kincardine project last year

DARIUS SNieckus

MHI Vestas has been tapped to supply the turbines to be installed at Scotland's 50MW Kincardine floating wind array, setting the seal on the rebirth of a project that came close to being iced last year.

The deal with Spanish developer Cobra Wind International for five 9.5MW V164 machines — which will join the 2MW scout turbine moored last year — marks the first order for 9MW-plus machines for a floating wind project.

"Bringing our technology and experience to Kincardine...

confirms our long-term commitment to commercial scale, floating offshore wind projects in the future," said MHI Vestas chief executive Philippe Kavafyan.

The turbines are due to be installed in spring next year and be serviced and maintained by MHI Vestas for ten years.

Kincardine, located in 60-80 metres of water 15km off Aberdeen, has had a rollercoaster ride to get to this point.

First hatched by Scottish developer Pilot Offshore Resources in 2014, the project was later taken over by Cobra, a subsidiary of Spanish

construction giant ACS Cobra. The first 2MW unit installed last autumn — on the reconditioned WindFloat 1 semisubmersible foundation that had been installed off Portugal from 2011-16 — meant the project just qualified by the UK's lucrative Renewables Obligation Certificates.

Spanish joint venture Navantia-Windar will build the semisubmersible foundations for the five MHI Vestas machines.

The world's first commercial-scale floating wind farm, Equinor's 30MW Hywind, was brought on line in late 2017 off the Scottish coast. ☐

Turbine prices stabilising as machines get more powerful

CONTINUED from Page 1
Mackenzie Power & Renewables research director Luke Lewandowski, who said: "Global turbine pricing remains relatively stable quarter-on-quarter, if not increasing in certain markets.

"Demand for new turbine models ahead of policy expirations and targets has started to fill order books as OEMs transition production lines, which has caused a modest uptick in pricing."

Blanco told *Recharge* that one of the reasons for stabilising turbine prices is that newer, more powerful machines are on the market.

At the conference this week, Nordex will present its first 5MW turbine, the N149/5.X — an upgrade of its Delta4000 platform of 4-5MW turbines that will be available in several power ratings from 5MW to just below 6MW.

That puts Nordex on par with other Western OEMs that also already offer machines in the 5MW class, such as GE, Vestas or Enercon.

Offering a greater capacity per turbine (at presumably similar per-unit prices) comes on top of company efforts to a stringent programme to reduce purchasing costs in recent years, the Nordex boss stressed. ☐

The likes of Germany will follow Nordics 'for sure'

CONTINUED from Page 1
added, helped by the fact that support granted in the two Scandinavian countries is already relatively low.

"So many fundamental elements are in place in the Nordic markets, which give wind such a competitive edge," he said. "The Nordics are a shining example of how the future will look in a lot of markets eventually."

Larger markets such as Germany will "for sure" follow, de Baar reckons, but added that

market design and innovation will still evolve, increasingly leading to combined hybrid set-ups for wind and solar.

Sweden and Norway last year were particularly good markets for Vestas, and despite their relatively low number of inhabitants were, respectively, the company's third- and sixth-largest markets in terms of worldwide order intake.

Sound policies granting a reliable legal framework for renewables, good wind resources,

public opinion supporting green energy, as well as the possibility to install the latest technology all have contributed to make the Nordic markets particularly promising for wind power, de Baar stressed.

An example of latest technology is the very thin, cable-stayed turbine tower, that Vestas will install later this year. "As the construction is held upright by three steel cables, the tower is very lean, allowing for cost savings," he said. ☐

GE wins first order for Cypress model

GE Renewable Energy has booked the first order for Cypress, the platform it launched last September to take its onshore wind business into the 4-5MW arena.

German developer Prowind will deploy three 4.8MW Cypress turbines with 77-metre two-piece blades made by its LM Wind subsidiary at the Elfershausen project in Bavaria, Germany.

Australia's 2GW offshore project clears its first licensing hurdle

ANDREW LEE

Plans for Australia's first offshore wind farm cleared a big hurdle when the country's government granted an exploration licence for the 2GW Star of the South project.

The licence allows the development team to carry out technical and environmental studies in federal waters at the proposed project site off Gippsland in the state of Victoria.

Star of the South — which is backed by global offshore wind investor Copenhagen Infrastructure Partners (CIP) — wants to deploy turbines 10-25km off the coast in the Bass Strait, to supply energy to demand centres including Melbourne, Australia's second-largest city.

Star of the South chief executive Andy Evans said: "While it's still early days for the project, these crucial investigations will help us move forward and understand how we might progress an offshore wind project in Australia."

The granting of the licence took longer than expected, prompting anger in some quarters. The Maritime Union of Australia in February claimed the delay was a result of "ideological hatred" of renewables in the country's Coalition government. ☐

World first for on-turbine Lidar

Wind-reading Lidar laser technology will for the first time be built in to every turbine on a wind farm, after developer Fred Olsen Renewables finalised a deal with specialist contractor ZX for the 105MW Högaliden project in Sweden.

The Lidar on the Vestas V150-4.2MWs will remotely scope wind conditions "at multiple ranges ahead" of each turbine.



President Andrés Manuel López Obrador, widely known as AMLO

Mexico state utility seeks retroactive changes to 7GW of tender contracts

ALEXANDRE SPATUZZA

State-controlled power company CFE is looking to "revise the conditions" of deals agreed with 7GW of wind and solar projects during Mexico's clean-energy tenders.

CFE — the sole offtaker in the auctions held under the previous government — said the changes are justified as the recently-elected left-wing administration of President Andrés Manuel López Obrador (AMLO) has made major changes to the country's energy policy.

A total of 65 projects were awarded contracts in national tenders in 2015 and 2017, which resulted in record-low power prices that fell to below \$20/MWh.

"We want to revise the conditions [in the contracts]... we will seek change. We have the right to do this because it's a new government with a new vision," CFE's general director Manuel Bartlett told reporters during a

three-hour press conference.

The 83-year-old CFE chief did not specify what form any revision could take. But he said CFE's new strategy will mean building generation capacity



instead of buying power from other generators.

"They want to sell us more wind power but we don't want to buy, we want to generate more [wind power]," he said.

Bartlett claimed CFE was forced to buy power against its interests, and that the low prices don't cover

the costs of transmission and of baseload generation needed to make up for variability of solar and wind generation.

"This is the support that CFE gives to ensure the delivery of this power, and this support is not paid for... CFE was forced to buy power from its competitors and this doesn't make sense. They carried out true dumping [on CFE]," he claimed.

However, Bartlett insisted: "Does this mean we will move away from renewables? No it doesn't."

The move comes after the government cancelled the fourth clean-energy tender in which CFE would have been among the main offtakers.

Last month, energy secretary Rocío Nahle said that a new renewable energy policy is still being drawn up, which could include local content and decentralised tenders. But she also said that contracts will be respected. ☐

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BERND RADOWITZ

Enercon is rebadging all turbines developed jointly with its Dutch Lagerwey subsidiary, which it bought at the end of 2017, with its own branding, as the German wind OEM revealed it will launch new models with a power rating of up to 5MW.

The company will give a power boost to the L147 LP4 Lagerwey machine for medium winds presented in September, giving the new turbine the name E-147 EP5, with a 5.0MW nominal capacity. It will also boost the L160 LP4 to become the E-160 EP5 with a rating of 4.6MW.

“This move is a way for us to accommodate the fast-paced developments in our relevant wind energy markets,” said Enercon sales director Stefan Lütkemeyer.

“Our customers are calling for more powerful and more efficient wind turbines. By positioning the E-147 and the E-160 higher, we are offering them other attractive options in a tough competitive environment for their onshore wind projects around the world.”

The rest of the key data and the geometry of the new turbine types will remain largely unchanged. Both of the new developments are based on the EP5 platform, which,



Enercon abandons Lagerwey brand as it gears up to 5MW

like the recent EP3 platform, has a compact and cost-optimised design at its root.

The new EP5 machines are due to be officially unveiled at this event.

With the E-147 EP5, Enercon joins other Western wind OEMs

that already have announced onshore turbines with a capacity of 5MW or more, including Vestas, GE and Nordex.

Enercon also confirmed that it has mothballed the production of its 7.5MW E-126 machine — the world's largest onshore turbines.

Only a small number of the models were ever sold, partly due to their sheer size and consequent transport constraints.

The super-sized machine was last installed at Innogy's 90MW Zuidwester repowering project in the Netherlands in 2017. 

Enercon seeks investor for Europe's largest under-construction project

BERND RADOWITZ

Enercon has started to install the 844MW Maximus project in northern Sweden, while simultaneously trying to sell off part of it to investors.

Maximus is a sub-project of the second phase of the 4GW Markbygden wind complex, which is set to become Europe's largest wind project.

However, *Recharge* has learned that Enercon and co-developer Svevind may not build all of the planned 4GW.

“4GW might be too ambitious,” Wolfgang Fettig, financial advisor for Enercon's management team, tells *Recharge*.

“We are convinced to find

reliable partners who are interested in a long-term operation of [Maximus],” said Enercon managing director Hans-Dieter Kettwig. “The interest of potential investors is definitely there as we have learnt in previous projects in Sweden.”

The company has not revealed the size of the stake in Maximus it hopes to sell, but it doesn't usually keep large stakes in self-developed projects.

The manufacturer will install 201 turbines from its E-138 EP3 series at Maximus, which is located in the municipality of Piteå.

Last November, Enercon said the second phase of Markbygden would have 1.1GW, but now




said it is uncertain at this point whether more turbines will be added.

Markbygden was initially a co-development between Enercon and developer Svevind, which

had put its eventual total volume at up to 4GW. In December 2015, Enercon took over ownership for parts of phase one and the whole of Phase two of Markbygden.

Infrastructure work for the massive wind farm has already been started.

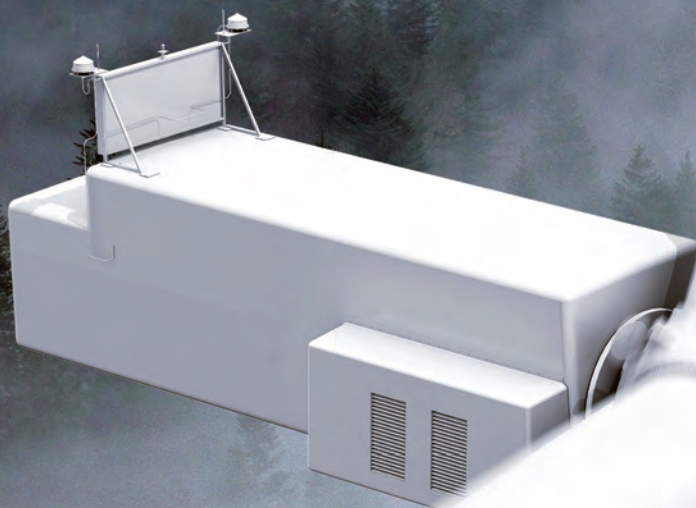
Maximus will start operation as soon as the grid connection is available in mid-2020, and Enercon expects it to be fully operational by the end of the third quarter of 2021.

Sweden is one of Enercon's core international markets. The company has intensified its international activities significantly in recent times due to the decline in its German home market. 

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HIGHLIGHTS OF THE DAY

TUESDAY 2 APRIL

#windeurope2019



- Individual session tickets are available at the registration desk!
- Ministerial session and Official inauguration are **open to all registered participants!**

Programme overview



09:00 - 10:45	Ministerial session	Level 4	Auditorium 1-2
10:45 - 11:30	Poster viewing	Level 3	Poster area
11:30 - 12:30	Official inauguration	Level 4	Auditorium 1-2
12:30 - 13:30	Lunch	Exhibition Hall 3	
13:30 - 14:45	Brexit: what's next?	Level 4	Auditorium 2
	Efficient permitting: a key to unlock market potential	Level 3	Luxua 2
	Developments in offshore wind technology	Level 3	Luxua 1
14:45 - 15:15	Poster viewing	Level 3	Poster area
15:15 - 16:30	From vision to reality: the road to a wind-based energy system	Level 4	Auditorium 2
15:15 - 16:45	Towards commercialisation of floating offshore wind	Level 3	Luxua 1
16:30 - 17:15	Poster viewing	Level 3	Poster area
17:15 - 18:30	Wind Energy 5.0: beyond turbines?	Level 4	Auditorium 2
	Decommissioning wind assets: state-of-the-art practices	Level 4	Luxua 2

See the programme online:

windeurope.org/confex2019/conference/programme/

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HIGHLIGHTS OF THE DAY

TUESDAY 2 APRIL

#windeurope2019

Social events


**Euskadi/Basque Country
Stand Reception**

13:00

Basque Pavilion, Hall 1
Network over refreshments at the
Basque Country stand.


Greenbyte stand party

17:00

Greenbyte stand 3-D56
Greenbyte invites you to their
stand to have a taste of craft beer
produced in their hometown of
Gothenburg, Sweden.


ABB stand party

17:30

ABB stand 3-E30
Enjoy traditional Basque "pintxos"
and "txakoli" with ABB at their
booth 3-E30, while chatting about
the future of energy!


Opening reception

18:00 - 20:00

WindEurope stand 3-E22
Join us for drinks and nibbles at
the end of the first day. We'll also
be announcing the winner of the
Poul La Cour Award.

See the programme online:
windeurope.org/confex2019/networking/#social-events

Side events

09:00 - 17:00	NEWA final workshop	Level 5	Room 4
14:00 - 17:00	Offshore Hybrid Projects	Level 5	Room 2
14:15 - 16:15	South East Europe in focus	Level 5	Room 3
16:00 - 16:45	Women in Wind launch event	Stand 3-F24	

See the programme online:
windeurope.org/confex2019/networking/#side-events

Exhibition halls

HALL 1

**Thought Leaders
Forum**

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11:00-17:00

Offshore wind and
the transformation of
Europe's energy system

See the programme online:
windeurope.org/thoughtleaders



HALL 3

**Safety, Skills
& Training Zone**
In association
with

10:30-16:30

Training demonstrations
& GWO Clinics

See the programme online:
windeurope.org/trainingzone



BERND RADOWITZ

A wind turbine test facility in Denmark will be able to put nacelles of 16MW machines through their paces after receiving a Dkr50m (\$7.58m) grant from the Danish government.

The Lindø Offshore Renewables Centre (LORC) will now be extended to become the world's most powerful facility for the development, testing and validation of technology for wind turbines, according to the Danish Wind Industry Association (DWIA).

The centre will be able to test machines that are 60% more powerful than the largest wind turbines currently on the drawing board, which are expected to be commissioned in early 2020.

"Denmark is a green pioneer, and with the support of LORC, we cement the ambition to play a key role in developing the super wind turbines of the future," said finance minister Kristian Jensen.

DWIA did not reveal which wind OEM will be testing nacelles for 16MW machines.

Danish-Japanese wind turbine maker MHI Vestas has a nacelle assembly that, like LORC is located at the port of Lindø, near Odense, but told *Recharge* it has no plans to test a 16MW turbine at LORC.

A range of 10MW-plus offshore turbines are in development, with the largest announced so far being GE's 12MW Haliade.

The fresh money for LORC



Lindø port, the location of LORC

Denmark to test nacelles for 16MW offshore wind turbines

is the first concrete initiative unveiled after the DWIA — along with Ørsted, Vattenfall, Siemens Gamesa, Vestas and MHI Vestas — signed a memorandum of understanding (MoU) with the Danish government in January to ensure that Denmark is the preferred country for the global wind industry.

Unlike many other countries, Denmark has not established

minimum local-content requirements for wind projects and instead bets on providing perfect conditions for global wind energy companies to entice testing, research and manufacturing facilities into the country.

"The Danish wind turbine industry literally takes some huge steps for our green transition and at the same time helps to draw

large investments to Denmark," said Lars Lilleholt, the country's energy, supply and climate minister. "Therefore, in the government, we have decided to support the new testing facilities at LORC with Dkr50m. The work that is going to take place here is in all Danes' interests — in relation to the climate, and in relation to export opportunities and green jobs." ☐

Equinor eyes Greece for major floating wind-power projects

ANDREW LEE

Equinor aims to develop floating wind projects off Greece, the Norwegian energy giant confirmed to *Recharge*.

Equinor — the pioneer of commercial floating wind power — believes Greece can mirror the UK's potential to "make offshore wind a cornerstone of their energy production and maritime industry", citing its excellent wind conditions, deep waters and shipyard facilities.

The Norwegian oil & gas group's

comments followed reports in Greece that deployment of floating turbines in the Aegean Sea had been discussed by the two nations' governments. Offshore wind is included as a potential source of renewable power in Greece's draft national energy & climate plan, detailing how it expects to meet EU clean-energy goals, said Equinor.

"Equinor is hopeful that there will be a business case for floating offshore wind in Greece," Sebastian Bringsværd, project director for Equinor's Hywind

floating wind operation, told *Recharge*. "Such a business case will require that the authorities open areas and production

licenses for offshore wind and that a remuneration system is put in place."

Equinor has already deployed the world's first commercial floating wind farm off Scotland and is advancing the 88MW Hywind Tampen project to power offshore oil & gas operations off Norway.

Further afield it has signed a memorandum of understanding with South Korean state-owned oil group KNOC in a bid to build commercial floating wind projects off that country's coast. ☐



The Aegean Sea off Greece

EDF in breakthrough deal to build offshore wind in China

ANDREW LEE

France's EDF will help build two offshore wind farms in China in a major breakthrough for a Western developer in the fast-growing market there.

The French energy group has agreed to take an undisclosed stake in the Dongtai 4 and 5 projects — 500MW in total — being developed by China Energy Investment Corporation (CEIC), one of the country's major power groups.

EDF is already active in European offshore wind markets via its EDF Renewables unit, but this is its first foray into Asia — and new ground for a foreign developer in China.

After a sluggish decade, China's offshore wind market is finally motoring and last year it overtook the UK to become the largest market by annual installations when it added 1.8GW.

The sector has so far been dominated by deep-pocketed Chinese power groups and local equipment manufacturers. But there are signs that China is becoming more open to foreign input as it seeks to tap into the know-how behind Europe's rapid offshore wind growth.

The same trend is visible onshore, where leading western OEMs are in line for a share of the world's largest wind farm in Inner Mongolia (see story, right).

Researchers at Wood Mackenzie



EDF's Blyth Offshore demonstrator wind farm off northeast England

said China could reach 31GW by 2030 as Asia overtakes Europe to become the largest global offshore wind market.

Subject to final agreement,



President Xi Jinping

CEIC and EDF will bring the Dongtai projects on line in phases by 2021.

"The agreements signed today consolidate EDF's foothold in China, a strategic country for the group's international expansion," said EDF chief executive Jean-Bernard Lévy last week. "In China, EDF is now active in all main business segments, all of these helping the group to support China's energy ambitions whilst reducing CO₂ emissions: nuclear, renewables and energy services."

The deal was signed during a visit to France by Chinese President Xi Jinping. □

Major Western OEMs fight to supply 6GW Chinese project

YUKI YU

International turbine giants Siemens Gamesa, GE and Vestas have joined local players in bidding for a share of the giant 6GW Ulanqab project, set to be the world's largest wind farm and a zero-subsidy milestone in the Chinese market.

As predicted by *Recharge*, the foreign OEMs submitted bids, alongside 11 Chinese turbine makers, to a tender initiated by Ulanqab's developer, State Power Investment Corp (SPIC).

The Ulanqab tender — one of the first held in China on a competitive, zero-subsidy basis — explicitly looked for "global top-15" turbine OEMs to bid, in what commentators said was a significant signal of new openness to foreign manufacturers in the Chinese wind sector.

All participants were required to bid on all five project sections, ranging from 800MW-1.4GW, but any single OEM can only win up to two slots.

The three foreign players bid higher rates than their Chinese peer, with Vestas offering an average of 4,400 yuan (\$655) per kW — including 20 years of maintenance — 40% higher than Shanghai Electric's bid of less than 3,200 yuan. But foreign suppliers are still expected to have a good chance of getting a cut of the project. □

Photography | AFP/Getty | Getty

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Benjamin Franklin

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BERND RADOWITZ

Sweeping distance rules for onshore wind could prevent Germany from reaching its renewable energy targets, according to a new study by the country's environmental agency, UBA.

A minimum distance of 1,000 metres between wind farms and settlements — akin to the rule enforced in Germany's largest state, Bavaria — would reduce the areas currently available for wind developments by 20-50%, said UBA's study, entitled *Impacts of Minimum Distances Between Wind Turbines and Settlements*.

Such a distance rule across Germany would make the planned wind-energy expansion "practically impossible", the study concludes.

"To guarantee a further expansion of wind energy, areas would need to be made available [for wind energy] that so far have been excluded for other reasons."

Germany aims to expand the proportion of renewables its electricity mix to 65% by 2030, up from 38% in 2018.

Currently, about half of existing turbines could be repowered, according to existing planning rules. With a distance requirement of 1,000 metres, that share would fall to below 35%, the study found.

In 2014, Bavaria enacted a 10H distance rule — meaning new wind farms need to be built at a distance from the next human settlement of at least ten times the tip height of a wind turbine. New



Wind distance rules 'threaten Germany's expansion targets'

wind developments in the state have consequently been brought to a near-standstill.

The state is governed by the Christian Social Union (CSU), the Bavarian sister party of the Christian Democrats (CDU). In the state of North-Rhine-Westphalia, the ruling CDU also wants to push through a wind distance rule.

"If you want to prescribe

distances of 1,000 metres or more for wind turbines, you paralyse the expansion of wind energy in Germany," says Julia Verlinden,

the Green Party spokeswoman for energy policy in the Bundestag.

"The study exposes demands from the ranks of the CDU/CSU

for sweeping distance rules or impediments in planning rights for what they really are: a fundamental attack on the *Energiewende* [energy transition] and climate protection." ☐

Demands for distance rules are a fundamental attack on the *Energiewende* and climate protection

Vestas bags more than 1GW of turbine orders on five continents

LEIGH COLLINS

Vestas has announced 1,143MW of new turbine orders from around the world, including the US, Vietnam, Taiwan, Brazil, New Zealand and the UK.

This influx brings the Danish turbine maker's total orders for the first quarter to 2,215MW — a new record for the company, and an 88% increase on Q1 2018.

Jacob Pedersen, an analyst at Sydbank, said he expects Vestas to add around 600MW of

unannounced orders to this total.

Vestas will see a record 14.5GW of orders in 2019, he forecasts.

The two largest of the nine orders were both in Brazil, with 361MW from Engie Brasil, and 206MW from the local subsidiary of French group Quadran International. Both orders were for the 4.2MW V150 — 86 machines for Engie's Campo Largo Phase 2 wind farm in the state of Bahia, and 49 units for Quadran's 206MW Serrote facility in Ceará.

New Zealand-based utility

Mercury ordered 33 of Vestas' V112-3.45MW machines (in 3.6MW "Power Optimised Mode") for the 119MW Turitea wind farm on the North Island.

Vestas received its first order in Southeast Asia for ten of its V150-4.2MW machines, destined for a project in Vietnam being built by an undisclosed foreign investor.

The OEM also announced two orders from the US — for 182MW of 4.2MW V150 machines from an undisclosed customer, and for 143MW of 3.45MW V126

turbines from Copenhagen Infrastructure Partners, destined for phase two of the Bearkat wind farm in Texas.

In addition, a 43MW order for 12 V105-3.6MW machines was received for the 43MW Changhua wind farm in Taiwan, from its owners Foxwell Energy and TCC Green Energy.

At the end of last week, Vestas announced a 47MW subsidy-free order in Scotland, and another subsidy-free order for a 17MW wind farm in Denmark. ☐

RICHARD A KESSLER

Enel Green Power has acquired its longstanding US wind project partner Tradewind Energy, and immediately announced a deal to sell 6GW of its 13GW renewables and storage US development pipeline to a Macquarie Group subsidiary.

With Tradewind in-house, Italian utility Enel will now be able to manage all aspects of the renewable value chain in North America, from greenfield development through operations.

In a January interview with *Recharge*, Enel Green Power North America (EGPNA) chief executive Georgios Papadimitriou said that the company was committed to aggressive renewables development in North America, mainly the US, with a focus on the corporate market.

That growth strategy will now go forward with “even greater speed and efficiency,” strengthening Enel’s position in the US, he said in a statement.

Massachusetts-based EGPNA did not release any financial details for its acquisition of Tradewind. The Kansas-based company has been a leading and respected independent wind project developer this decade, mainly in the Southwest Power Pool, which operates a bulk electricity grid and wholesale power market in 14 central states including Kansas, Nebraska, Oklahoma and northern Texas.

Tradewind operates 1.4GW of wind capacity in Kansas, the number-five wind state that is expected to pass number-four



Enel Green Power
North America
chief executive
Georgios
Papadimitriou

Enel buys Tradewind to turbocharge US renewables growth

California this year.

Enel and Tradewind have been strategic development partners since 2006, supporting Enel’s growth in the US wind market. During this period, Enel successfully constructed and began operations of around 3.9GW of capacity developed by Tradewind.

Separately, Enel signed a “definitive agreement” with Macquarie’s UK-based Green Investment Group to sell Savion, a 100% subsidiary of Tradewind

that includes a development platform including 6GW of solar and storage pipeline projects.

Value of the deal and a list of projects involved were not released.

Enel expects to close the transaction with Macquarie mid-year as it requires regulatory approval. Once completed, Enel says it will be able to secure additional value through the sale “that will deliver immediate returns.”

Tradewind is the latest mid-size

developer and asset owner to lose its independence in a business increasingly dominated by several large US utility groups led by NextEra Energy and European players such as Iberdrola, EDF and EDP.

Last year, France’s Engie bought Infinity Renewables, Germany’s Innogy acquired EverPower and a unit of Canada’s Brookfield Asset Management has a 65% stake in TerraForm Power, whose former owner was bankrupt renewables operator SunEdison. 

US energy secretary opens wallet to offshore, rural and ‘tall’ wind

DARIUS SNIECKUS

The US Department of Energy (DOE) has offered up \$28m to advance offshore, distributed and “tall” wind across the lower 48 states.

With the country’s installed wind power fleet having grown to 90GW, the DOE said it was focusing the funding on the “significant opportunities” it believes exist in the sector.


“Wind power is an important part of America’s energy strategy,” said US secretary of energy Rick Perry. “Research, development, and demonstration of innovative wind technologies can continue to drive down costs and expand the success that we’ve seen in the land-based utility-scale wind sector to the emerging distributed wind and offshore wind sectors.”

Among the areas to be funded are: offshore wind demonstration



US energy
secretary Rick
Perry

projects that will be on line by 2025, for which \$10m has been allocated, and \$7m for existing national-level offshore wind testing facilities.

Some \$6m will go to rural utilities and communities’ development of distributed wind integrated with other energy resources; and \$5m to advancing turbine towers of over 140 metres, which position rotors in higher-speed wind streams. 

Photography | Enel Green Power | Getty



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